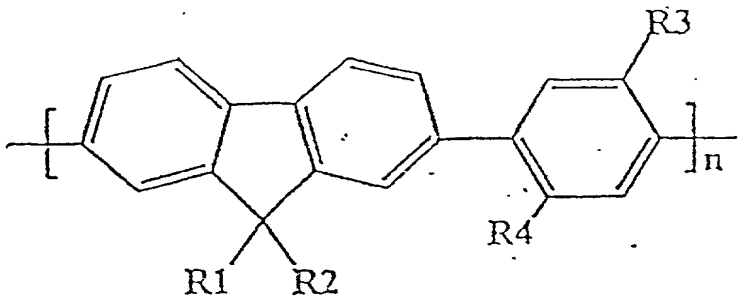
We Claim:

1. A polymeric material comprising alternate substituted fluorene and phenylene units, as represented by the following formula



wherein R_1, R_2, R_3 and R_4, which may be identical or different, are each selected from the group consisting of H, a (C_1 – C_{22}) linear or branched alkyl, alkoxy or oligo (oxyethylene) group, a (C_6 – C_{30}) cycloalkyl group, and an unsubstituted or substituted aryl group, and n is from about 3 to about 5000.

2. A polymeric material according to claim 1 wherein R_1 and R_2, which may be identical or different, are each selected from the group consisting of H, (C_1 - C_{22}) linear or branched alkyl groups, oligo (oxyethylene) groups or unsubstituted or substituted aryl groups, and wherein R_3 and R_4, which may be identical or different, are each selected from the group consisting of H, alkoxy groups, oligo (oxyethylene) groups, (C_6 - C_{30}) cycloalkyl groups or unsubstituted or substituted aryl groups.

3. A polymeric material according to claim 1 wherein R_1 and R_2 are dialkyl groups and wherein R_3 and R_4 are dialkoxyl groups.

4. A polymeric material according to claim 1 wherein n is from about 5 to about 1000.

5. A polymeric material according to claim 1 which emits visible light having a wavelength of between 350 and 550 nm.

6. A polymeric material according to claim 5 which emits visible light having a wavelength of about 430 nm.

7. A light emitting diode comprising a polymeric material in accordance with claim 1.

8. A light emitting diode having an anode layer, a polymer layer comprising a polymeric material in accordance with claim 1, and a metal cathode layer.

9. A light emitting diode according to claim 7 having an additional hole transporting layer between the anode layer and the polymer layer.

10. A light emitting diode according to claim 9 wherein the hole transporting layer includes polyvinylcarbazole.

11. A light emitting diode according to claim 9 having an additional hole injection layer between the hole transporting layer and the polymer layer.

12. A light emitting diode according to claim 11 wherein the hole injection layer comprises copper phthalocyanine.

13. A light emitting diode according to claim 11 wherein the hole injection layer comprises polyaniline.

14. A full color display incorporating a polymeric material in accordance with claim 1.

15. A full color display incorporating a light emitting diode in accordance with claim 7.

16. A polymeric material according to claim 1 made in accordance with a Suzuki coupling process.

17. A polymeric material according to claim 16 wherein the monomers are 2, 7-diboronates of 9,9-disubstituted fluorenes and 1,4-dibromo-2,5-disubstituted benzenes.

18. A polymeric material according to claim 16 wherein the monomers are prepared using Grignard reagents.